Biblio NPL

9/5/13 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

10526428 EMBASE No: 2000001730
Hyperemic coronary flow after optimized intravascular ultrasound- guided balloon **angioplasty and** stent **implantation**
Van Liebergen R.A.M.; Piek J.J.; Koch K.T.; Peters R.J.G.; De Winter R.J.; Schotborgh C.E.; Lie K.I.
AUTHOR EMAIL: j.j.piek@amc.uva.nl
Journal of the American College of Cardiology (J. AM. COLL. CARDIOL.) (United States) 1999, 34/7 (1899-1906)
CODEN: JACCD ISSN: 0735-1097

OBJECTIVES: This study evaluated the acute physiological gain of adjunctive intravascular ultrasound (IVUS) **guided balloon** angioplasty and **stent** implantation. BACKGROUND: Recent studies indicate safe coronary luminal enlargement and ' **stent** -like' long-term outcomes using upsized **balloons guided** by IVUS. METHODS: After angiographically **guided balloon** angioplasty in 20 patients with 1-vessel disease and normal left **ventricular** function, IVUS was performed to determine the size of the adjunctive **balloon** using the mean of the maximal luminal diameter and the maximal diameter of the external elastic membrane measured in the adjacent proximal and distal reference segments. Serial adenosine-induced hyperemic blood flow velocity measurements were performed using a 0.014sup 1sup 1 Doppler **guide wire** to determine the physiological lumen obstruction after standard **balloon** angioplasty, followed by IVUS- **guided balloon** angioplasty and **stent** implantation. RESULTS: Upsized **balloon** angioplasty (increase **balloon** size: 0.98 +/- 0.26 mm; **balloon** :artery ratio 1.35 +/- 0.21) resulted in an additional increase of arterial dimensions: minimal lumen diameter (MLD) 2.18 +/- 0.38 mm to 2.73 +/- 0.51 mm; percent diameter stenosis (%DS) 34 +/- 13% to 19 +/- 22%; IVUS assessed minimal lumen area (MLA) 7.53 +/- 1.55 mmsup 2 to 10.24 +/- 2.22 mmsup 2 (all $p < 0.0001$). Major dissections (>= type C) did not occur. Hyperemic blood flow velocity increased from 49.8 +/- 20.1 cm/s to 59.1 +/- 22.9 cm/s ($p < 0.05$) after IVUS- **guided balloon** angioplasty. Adjunctive **stent** implantation resulted in a further increase of MLD to 3.84 +/- 0.51 mm, %DS to -9 +/- 21% and MLA to 13.39 +/- 1.80 mmsup 2 (all $p < 0.0001$), while hyperemic blood flow velocity remained unchanged (61.2 +/- 24.7 cm/s, $p = 0.7$). CONCLUSIONS: Upsized IVUS- **guided balloon** angioplasty increases arterial coronary dimensions and the distal hyperemic blood flow velocity. Adjunctive **stent** implantation does not yield a further gain in the hyperemic blood flow velocity, indicating the absence of a functional residual lumen obstruction after IVUS- **guided balloon** angioplasty. This may explain a similar clinical outcome reported after those coronary interventions.

9/5/16 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE

06744140 EMBASE No: 1997025616
New pediatric applications and techniques for balloon **valvuloplasty: Tetralogy of Fallot, complex pulmonary stenosis/atresia, and pulmonary atresia with intact septum**
Radtke W.A.K.

Progress in Pediatric Cardiology (PROG. PEDIATR. CARDIOL.) (Ireland) 1996, 6/2 (105-116)
CODEN: PPCAF ISSN: 1058-9813

Palliative pulmonary **balloon** valvuloplasty in Tetralogy of Fallot has been proposed to promote growth of the pulmonary valve so that it can be incorporated in a later repair without transannular patch to avoid the late complications from free pulmonary regurgitation. We have used the procedure in patients with severe hypoxemia less than 3 months old. Synopsis of 141 published cases and our own experience in 15 patients shows technical success in 93%, a complication rate of 5%, cyanotic spells in 9%, and a mortality of 0.6%. Arterial oxygen saturation instantly increased from 78 to 91%. Based on the intention to treat, emergent surgery was avoided in 65%. Despite a significant increase in pulmonary valve diameter, the incidence of transannular patch was reduced in only one study, partly reflecting the surgeon's preference. Palliative pulmonary **balloon** valvuloplasty can also promote pulmonary artery growth in other complex cyanotic lesions. In pulmonary valve atresia with intact **ventricular** septum without right **ventricular** dependent coronary circulation, catheter valvotomy and subsequent pulmonary **balloon** valvuloplasty can establish right **ventricle** to pulmonary artery continuity. Perforation of the atretic valve can be accomplished with a bare **wire** (rarely), with a hot tip laser **wire** or with a radiofrequency **wire** if available. We use a standard steerable 5 French electrode catheter to deliver radiofrequency pulses at 8-26 watt with subsequent dilatation using a 7-8 mm low profile **balloon** . If tricuspid valve diameter or right **ventricular** size are below normal, additional **stenting** of the ductus with a flexible **stent** **expanded** to 4-5 mm diameter should be performed. In patients with severe hypoplasia, **stent** placement across the outflow tract is necessary. With this strategy, overall outcome should be superior to the published data on 68 attempted catheter perforations: Out of the 74% technically successful procedures, only 47% remained without surgical intervention during early follow-up.

9/5/35 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

14372405 PASCAL No.: 00-0024822
Hyperemic coronary flow After optimized intravascular ultrasound- guided balloon **angioplasty and** stent **implantation. Commentary**
VAN LIEBERGEN R A M; PIEK J J; KOCH K T; PETERS R J G; DE WINTER R J; SCHOTBORGH C E; LIE K I; COLOMBO A rapp; BRIGUORI C rapp
Journal: Journal of the American College of Cardiology, 1999, 34 (7) 1899-1909
ISSN: 0735-1097 CODEN: JACCDI Availability: INIST-20098; 354000080814410090
OBJECTIVES This study evaluated the acute physiological gain of adjunctive intravascular ultrasound (IVUS) **guided** **balloon** angioplasty and **stent** implantation. BACKGROUND Recent studies indicate safe coronary luminal enlargement and " **stent** -like" long-term outcomes using upsized **balloons** **guided** by IVUS. METHODS After angiographically **guided** **balloon** angioplasty in 20 patients with 1-vessel disease and normal left **ventricular** function, IVUS was performed to determine the size of the adjunctive **balloon** using the mean of the maximal luminal diameter and the maximal diameter of the external elastic membrane measured in the adjacent

proximal and distal reference segments. Serial adenosine-induced hyperemic blood flow velocity measurements were performed using a 0.014" Doppler **guide wire** to determine the physiological lumen obstruction after standard **balloon** angioplasty, followed by IVUS- **guided balloon** angioplasty and **stent** implantation. RESULTS Upsized **balloon** angioplasty (increase **balloon** size: 0.98 +- 0.26 mm; **balloon** :artery ratio 1.35 +- 0.21) resulted in an additional increase of arterial dimensions: minimal lumen diameter (MLD) 2.18 +- 0.38 mm to 2.73 +- 0.51 mm; percent diameter stenosis (%DS) 34 +- 13% to 19 +- 22%; IVUS assessed minimal lumen area (MLA) 7.53 +- 1.55 mm SUP 2 to 10.24 +- 2.22 mm SUP 2 (all p < 0.0001). Major dissections (>= type C) did not occur. Hyperemic blood flow velocity increased from 49.8 +- 20.1 cm/s to 59.1 + 22.9 cm/s (p < 0.05) after IVUS- **guided balloon** angioplasty. Adjunctive **stent** implantation resulted in a further increase of MLD to 3.84 +- 0.51 mm, %DS to -9 +- 21% and MLA to 13.39 +- 1.80 mm SUP 2 (all p < 0.0001), while hyperemic blood flow velocity remained unchanged (61.2 +- 24.7 cm/s, p = 0.7). CONCLUSIONS Upsized IVUS- **guided balloon** angioplasty increases arterial coronary dimensions and the distal hyperemic blood flow velocity. Adjunctive **stent** implantation does not yield a further gain in the hyperemic blood flow velocity, indicating the absence of a functional residual lumen obstruction after IVUS- **guided balloon** angioplasty. This may explain a similar clinical outcome reported after those coronary interventions.

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Set     Items   Description
S1    1226748   ATRIUM? ? OR ATRIA? ? OR VENTRICLE? ? OR VENTRICULAR?
S2     551412   CORONARY(2N)(ARTERY OR ARTERIES OR VESSEL? ?)
S3     922436   GUIDE? ? OR GUIDEWIRE? ? OR WIRE? ?
S4    1302268   BALLOON? ? OR EXPANS? OR EXPAND?
S5     612705   STENT? OR PROSTHES?S
S6         70   S1 AND S2 AND S3 AND S4 AND S5
S7         64   S6 NOT PY>2000
S8         61   S7 NOT PD>20000504
S9         46   RD (unique items)
? show files
File   2:INSPEC 1969-2003/Apr W4
         (c) 2003 Institution of Electrical Engineers
File   5:Biosis Previews(R) 1969-2003/Apr W4
         (c) 2003 BIOSIS
File   6:NTIS 1964-2003/May W1
         (c) 2003 NTIS, Intl Cpyrght All Rights Res
File   8:Ei Compendex(R) 1970-2003/Apr W3
         (c) 2003 Elsevier Eng.  Info. Inc.
File  34:SciSearch(R) Cited Ref Sci 1990-2003/Apr W4
         (c) 2003 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2003/Apr
         (c) 2003 ProQuest Info&Learning
File  65:Inside Conferences 1993-2003/Apr W4
         (c) 2003 BLDSC all rts. reserv.
File  73:EMBASE 1974-2003/Apr W4
         (c) 2003 Elsevier Science B.V.
File  94:JICST-EPlus 1985-2003/Apr W4
         (c)2003 Japan Science and Tech Corp(JST)
File 144:Pascal 1973-2003/Apr W4
         (c) 2003 INIST/CNRS
File 155:MEDLINE(R) 1966-2003/Apr W4
         (c) format only 2003 The Dialog Corp.
File 172:EMBASE Alert 2003/Apr W4
         (c) 2003 Elsevier Science B.V.
File 198:Health Devices Alerts(R) 1977-2003/May W1
         (c) 2003 ECRI-nonprft agncy
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File  48:SPORTDiscus 1962-2003/Apr
         (c) 2003 Sport Information Resource Centre
File  71:ELSEVIER BIOBASE 1994-2003/Apr W4
         (c) 2003  Elsevier Science B.V.
File  91:MANTIS(TM) 1880-2002/Oct
         2002 (c) Action Potential
File 162:Global Health 1983-2003/Mar
         (c) 2003 CAB International
File 164:Allied & Complementary Medicine 1984-2003/May
          (c) 2003 BLHCIS
File 467:ExtraMED(tm) 2000/Dec
         (c) 2001 Informania Ltd.
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Inventor Search

3/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014483259 **Image available**
WPI Acc No: 2002-303962/200234
XRAM Acc No: C02-088365
XRPX Acc No: N02-237861

Conduit for providing blood flow directly from heart chamber to coronary vessel, includes stent having configuration with high radial strength and flexibility in compressed state and deployed state

Patent Assignee: PERCARDIA INC (PERC-N)
Inventor: **BOEKSTEGERS P** ; BRIEFS N; BUCK J; ROTH L A; SWAIN R
Number of Countries: 096 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200211647	A2	20020214	WO 2001US24334	A	20010806	200234 B
US 20020032478	A1	20020314	US 2000223424	P	20000807	200234
			US 2001917655	A	20010731	
AU 200177248	A	20020218	AU 200177248	A	20010806	200244

Bad Data

Priority Applications (No Type Date): US 2000223424 P 20000807; US 2001917655 A 20010731
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200211647	A2	E	23	A61F-002/06	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

US 20020032478 A1 A61F-002/06 Provisional application US 2000223424

AU 200177248 A A61F-002/06 Based on patent WO 200211647

Abstract (Basic): WO 200211647 A2

NOVELTY - A conduit (10) comprises a stent including a configuration having sufficient radial strength to resist deformation from contractile forces experienced during cardiac cycle and flexibility in a compressed state and a deployed state to permit passage to a myocardial site and remain patent when implanted in the site, and a covering applied to the stent.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of providing blood flow directly from a heart chamber to a coronary vessel comprising delivering a stent in the compressed state into a passage at the myocardial (MYO) site, and expanding the stent to deploy the stent in the passage.

USE - For providing blood flow directly from a heart chamber to a coronary vessel.

ADVANTAGE - The invention exhibits properties suited to placement in the myocardium and high flexibility in a compressed state and a deployed state to permit passage to a myocardial site and remain patent when implanted in the site. It is less traumatic to patient and provides complete passage or partial passages through the myocardium.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic, cross-sectional view of a human heart.

Conduit (10)
Blockage (BL)
Coronary artery (CA)

Left ventricle (LV)
Myocardial (MYO)
pp; 23 DwgNo 1/5
Title Terms: CONDUIT; BLOOD; FLOW; HEART; CHAMBER; CORONARY; VESSEL; STENT; CONFIGURATION; HIGH; RADIAL; STRENGTH; FLEXIBLE; COMPRESS; STATE; DEPLOY; STATE
Derwent Class: A96; P31; P32
International Patent Class (Main): A61F-002/06
International Patent Class (Additional): A61B-017/00
File Segment: CPI; EngPI

3/5/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014179112 **Image available**
WPI Acc No: 2001-663340/200176
XRPX Acc No: N01-494253
Methods and devices for delivering a ventricular stent
Patent Assignee: PERCARDIA INC (PERC-N)
Inventor: **BOEKSTEGERS P**
Number of Countries: 096 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200182837	A2	20011108	WO 2001US40655	A	20010503	200176	B
AU 200181277	A	20011112	AU 200181277	A	20010503	200222	
US 20020045928	A1	20020418	US 2000201732	P	20000504	200228	
			US 2001845154	A	20010501		
EP 1280473	A2	20030205	EP 2001959755	A	20010503	200310	
			WO 2001US40655	A	20010503		

the patent

Priority Applications (No Type Date): US 2000201732 P 20000504; US 2001845154 A 20010501
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200182837	A2	E	45	A61F-002/06	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200181277	A		A61F-002/06	Based on patent WO 200182837
US 20020045928	A1		A61F-002/06	Provisional application US 2000201732
EP 1280473	A2	E	A61B-019/00	Based on patent WO 200182837

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200182837 A2
NOVELTY - A hollow transparent needle punctures the anterior wall (16) of the coronary artery. The posterior wall (14) is punctured where the stent (12) is to be implanted. The needle is advanced through the heart wall (HW) until a reflux of blood is seen. A depth indicator shows the balloon length required. A guide wire, catheter and balloon are inserted and the balloon inflated. A stent is then positioned.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the related tools.
USE - For cardiac surgery.
ADVANTAGE - Improved effectiveness.

DESCRIPTION OF DRAWING(S) - The diagram shows a catheter carrying a delivery balloon loaded with a stent, with the balloon extending past the ends of the stent so as to form mechanical stops upon inflation of the balloon.

pp; 45 DwgNo 8/15

Title Terms: METHOD; DEVICE; DELIVER; VENTRICLE; STENT
Derwent Class: P31; P32
International Patent Class (Main): A61B-019/00; A61F-002/06
File Segment: EngPI

3/5/3 (Item 3 from file: 350)

010980806 **Image available**
WPI Acc No: 1996-477755/199648
XRPX Acc No: N96-402881

Vein pressure controlled selective suction or retrofusion of fluid from or into veins esp. for myocardial treatment - involving regulating retroinfused fluid flow during pump interval to keep target value of vein internal pressure as accurate as possible

Patent Assignee: BOEKSTEGERS P (BOEK-I)
Inventor: **BOEKSTEGERS P**
Number of Countries: 030 Number of Patents: 010
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 19514638	A1	19961024	DE 1014638	A	19950420	199648	B
WO 9632972	A1	19961024	WO 96EP1657	A	19960419	199648	
EP 827415	A1	19980311	EP 96914961	A	19960419	199814	
			WO 96EP1657	A	19960419		
DE 19514638	C2	19980604	DE 1014638	A	19950420	199826	
JP 11503640	W	19990330	JP 96531489	A	19960419	199923	
			WO 96EP1657	A	19960419		
EP 827415	B1	20020306	EP 96914961	A	19960419	200219	
			WO 96EP1657	A	19960419		
DE 59608846	G	20020411	DE 508846	A	19960419	200227	
			EP 96914961	A	19960419		
			WO 96EP1657	A	19960419		
CN 1182374	A	19980520	CN 96193387	A	19960419	200240	
US 6458323	B1	20021001	WO 96EP1657	A	19960419	200268	
			US 97945488	A	19971229		
US 20030044315	A1	20030306	WO 96EP1657	A	19960419	200320	
			US 97945488	A	19971229		
			US 2002261640	A	20020930		

Priority Applications (No Type Date): DE 1014638 A 19950420
Cited Patents: 2.Jnl.Ref; EP 357338; EP 364799; US 5024668; WO 9523620
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19514638	A1		11	A61M-001/00	
WO 9632972	A1	G	35	A61M-001/36	
Designated States (National): BG CA CN CZ HU JP PL RO SI SK TR US					
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
EP 827415	A1	G		A61M-001/36	Based on patent WO 9632972
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
DE 19514638	C2			A61M-001/00	
JP 11503640	W		33	A61M-001/14	Based on patent WO 9632972
EP 827415	B1	G		A61M-001/36	Based on patent WO 9632972

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DE	59608846	G	A61M-001/36	Based on patent EP 827415 Based on patent WO 9632972
CN	1182374	A	A61M-001/36	
US	6458323	B1	A61M-001/36	Based on patent WO 9632972
US	20030044315	A1	A61M-001/14	Cont of application WO 96EP1657 Cont of application US 97945488 Cont of patent US 6458323

Abstract (Basic): DE 19514638 A

The method uses the vein pressure to control the selection sucking out of fluid from the vein or retroinfusion into the vein. A catheter tube (60) open at the proximal end is inserted into the patient's vein (200) for infusion of fluid and for sucking fluid out. The vein (200) is then sealed relative to the catheter tube (60) at its proximal end. The fluid is periodically pumped into the vein and sucked out from the vein. The pump or suction intervals are synchronised with the heart rate of the patient.

A predetermined target value of the vein internal pressure is provided. The internal pressure of the vein is measured. The retroinfused fluid flow during the pump intervals is regulated such that the target value of the vein internal pressure is maintained as accurately as possible.

ADVANTAGE - Esp. for coronary veins. Carries out retroinfusion with optimal vein pressure for nutritional capillary filling. Extends applicability of vein retroinfusion e.g. for myocardial protection.

Dwg.1/6

Title Terms: VEIN; PRESSURE; CONTROL; SELECT; SUCTION; FLUID; VEIN; MYOCARDIUM; TREAT; REGULATE; FLUID; FLOW; PUMP; INTERVAL; KEEP; TARGET; VALUE; VEIN; INTERNAL; PRESSURE; ACCURACY; POSSIBILITY

Derwent Class: P31; P34; S05

International Patent Class (Main): A61M-001/00; A61M-001/14; A61M-001/36

International Patent Class (Additional): A61B-005/02; A61M-001/02; A61M-025/00; A61M-037/00; A61N-001/362

File Segment: EPI; EngPI

3/5/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

010018773

WPI Acc No: 1994-286485/199436

XRAM Acc No: C94-130739

Anti-tumour necrosis antibodies for treating cardiac insufficiency - are administered e.g. intravenously and by slow infusion

Patent Assignee: KNOLL AG (KNOL)

Inventor: **BOEKSTEGERS P** ; KAUL M; KEMPENI J; WERDAN K

Number of Countries: 019 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 4307508	A1	19940915	DE 4307508	A	19930310	199436	B
WO 9420139	A1	19940915	WO 94EP628	A	19940303	199437	

Priority Applications (No Type Date): DE 4307508 A 19930310

Cited Patents: 03Jnl.Ref; EP 453898; WO 8908460; WO 9211383

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4307508	A1		2	A61K-039/395	
WO 9420139	A1			A61K-039/395	

Designated States (National): CA JP US
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Abstract (Basic): DE 4307508 A

Use of anti-TNF (tumour necrosis factor) antibodies (Ab) for treating cardiac insufficiency is new.

USE - Ab are already known for treatment of septic shock, transplant rejection, allergy, autoimmune disease, 'shock lung', blood coagulation disorders and inflammatory bone disease associated with elevated TNF levels in the blood. They are now found to be useful for treating acute, severe and life-threatening cardiac insufficiency.

Dwg.0/0

Title Terms: ANTI; TUMOUR; NECROSIS; ANTIBODY; TREAT; CARDIAC; INSUFFICIENCY; ADMINISTER; INTRAVENOUS; SLOW; INFUSION
Derwent Class: B04; D16
International Patent Class (Main): A61K-039/395
International Patent Class (Additional): A61K-037/02
File Segment: CPI

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Set     Items   Description
S1         11   AU='BOEKSTEGERS P':AU='BOEKSTEGERS PETER'
S2         11   IDPAT (sorted in duplicate/non-duplicate order)
S3          4   IDPAT (primary/non-duplicate records only)
? show files
File 347:JAPIO Oct 1976-2002/Dec(Updated 030402)
         (c) 2003 JPO & JAPIO
File 348:EUROPEAN PATENTS 1978-2003/Apr W03
         (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030501,UT=20030424
         (c) 2003 WIPO/Univentio
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200328
         (c) 2003  Thomson Derwent
File 371:French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI.  All rts. reserv.
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Inventor Search in Medical Files

6/5/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12773146 BIOSIS NO.: 200000526769
Increased myocardial damage after stent **placement with high pressure inflation: Results from a randomized trial.**
AUTHOR: Dirschinger J(a); Kastrati A(a); Mehilli J(a); **Boekstegers P** ; Schuehlen H; Pache J; Neumann F-J; Steinbeck G; Schoemig A(a
AUTHOR ADDRESS: (a)Deutsches Herzzentrum, TU Munich, Munich**Germany
JOURNAL: European Heart Journal 21 (Abstract Supplement):p501 August-September, 2000
ISSN: 0195-668X
DESCRIPTORS:

6/5/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12361752 BIOSIS NO.: 200000115254
Comparison of Pura-Vario and Palmaz-Schatz stents **following implantation using normal and high pressure in pigs: Immediate and late results assessed by 3-dimensional IVUS.**
AUTHOR: von Degenfeld G(a); Heinrich D; Giehrl W; **Boekstegers P**
JOURNAL: Zeitschrift fuer Kardiologie 88 (11):p906-913 Nov., 1999
ISSN: 0300-5860
SUMMARY LANGUAGE: English; German

ABSTRACT: Introduction: The Pura-Vario **stent** features 2 newly designed "bridging segments" for enhanced longitudinal flexibility, in order to allow easier and safer **stent** implantation. Methods: The aim of the present experimental investigation was to analyze the expansion characteristics of the Pura-Vario **stent** (PV), and to compare it with the Palmaz-Schatz **stent** (PS). Furthermore, **stent** implantation using "high pressure" (18 atm) (HP) was compared with "normal pressure" (12 atm) (NP). **Stents** (n = 16) were implanted into the left anterior descending artery (LAD) and the circumflex artery (CX) of 8 pigs. **Stent** area, lumen area and **stent** asymmetry were measured by means of three-dimensional intravascular ultrasound (3D-IVUS): (1) immediately after implantation, and (2) at 14-days follow-up. Results: **Stent** expansion was found not to be uniform: the "bridging segments" were significantly larger than the "diamond segments" in either **stent** model at day 0; this difference, however, disappeared at 14-days follow-up. Despite higher flexibility of the Pura-Vario **stent** , no difference in **stent** expansion was found between both **stent** models, neither immediately after implantation (mean lumen area: 9.75 +- 0.28 mm2 (PV) vs. 9.82 +- 0.34 mm2 (PS)), nor at 14-days follow-up (7.44 +- 0.16 mm2 (PV) vs. 7.45 +- 0.22 mm2 (PS)). Pura-Vario **stents** , however, were less asymmetric in the cross-sectional view. Implantation using "high pressure" resulted in larger and less asymmetric **stent** expansion only at day 0 (lumen area: 9.54 +- 0.39 mm2 (HP) vs. 8.77 +- 0.33 mm2 (NP) ($p < 0.05$)); this difference, however, disappeared after 14 days due to higher **stent** -recoil in the "high pressure" group. Conclusion: Despite higher flexibility of the Pura-Vario **stent** , expansion characteristics of both **stent** models were comparable. "High pressure" implantation compared favorably with "normal pressure" implantation only at day 0,

whereas no difference could be found between both techniques at 14-days follow-up.

6/5/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12260706 BIOSIS NO.: 200000014208
Stent **placement with high pressure inflation is associated with increased CK release: Results from a randomized trial.**
AUTHOR: Dirschinger Josef(a); Kastrati Adnan; Neumann Franz Josef; **Boekstegers Peter** ; Mehilli Julinda; Schuhlen Helmut; Schomig Albert
JOURNAL: Circulation 110 (18 SUPPL.):pI215 Nov. 2, 1999
ISSN: 0009-7322
DESCRIPTORS:
MAJOR CONCEPTS: Enzymology (Biochemistry and Molecular Biophysics); Cardiovascular Medicine (Human Medicine, Medical Sciences)
DISEASES: myocardial infarction--heart disease, incidence, vascular disease
METHODS & EQUIPMENT: balloon pressure inflation--therapeutic method; **stent** placement--therapeutic method

6/5/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12220469 BIOSIS NO.: 199900515318
Equivalence of difference? One year follow-up of a randomized trial of five different slotted-tube stents .
AUTHOR: Dirschinger Josef(a); Schuhlen Helmut(a); **Boekstegers Peter** ; Hausleiter Jorg(a); Kastrati Adnan(a); Giehrl Wolfgang; Pache Jurgen(a); Hadamitzky Martin(a); Neumann Franz-Josef(a); Steinbeck Gerhard; Schomig Albert(a
JOURNAL: Circulation 98 (17 SUPPL.):pI661 Oct. 27, 1998
CONFERENCE/MEETING: 71st Scientific Sessions of the American Heart Association Dallas, Texas, USA November 8-11, 1998
ISSN: 0009-7322
DESCRIPTORS:

6/5/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12219321 BIOSIS NO.: 199900514170
High versus low balloon pressure for stent **deployment in small (less than 3 mm) coronary arteries: One-year results of a randomized trial.**
AUTHOR: Schuhlen Helmut(a); Hausleiter Jorg; Giehrl Wolfgang; Pache Jurgen; Wehinger Anne; **Boekstegers Peter** ; Dirschinger Josef
JOURNAL: Circulation 98 (17 SUPPL.):pI160 Oct. 27, 1998
ISSN: 0009-7322

6/5/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12177387 BIOSIS NO.: 199900472236
Influence of stent **design on one-year outcome after coronary** stent **placement: A multicentre randomized trial with five** stent **types.**
AUTHOR: Dirschinger J; Kastrati A(a); **Boekstegers P** ; Elezi S(a); Schuehlen H; Pache J; Steinbeck G; Schmitt C(a); Ulm K; Neumann F J(a); Schoemig A(a
JOURNAL: European Heart Journal 20 (ABSTR. SUPPL.):p605 Aug., 1999
ISSN: 0195-668X

6/5/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12175080 BIOSIS NO.: 199900469929
Stent **implantation with different pressure: Evidence of superior results in experimental studies?**
AUTHOR: Gonschoir P(a); Valassis G(a); Vogel-Wiens C(a); Milz S; **Boekstegers P**
JOURNAL: European Heart Journal 20 (ABSTR. SUPPL.):p266 Aug., 1999
ISSN: 0195-668X

6/5/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12163809 BIOSIS NO.: 199900458658
Influence of balloon pressure during stent **placement in native coronary arteries on early and late angiographic and clinical outcome: A randomized evaluation of high-pressure inflation.**
AUTHOR: Dirschinger Josef(a); Kastrati Adnan; Neumann Franz-Josef; **Boekstegers Peter** ; Elezi Shpend; Mehilli Julinda; Schuehlen Helmut; Pache Juergen; Alt Eckhard; Blasini Rudolf; Steinbeck Gerhard; Schoemig Albert
JOURNAL: Circulation 100 (9):p918-923 Aug. 31, 1999

ABSTRACT: Background-High-pressure dilatation is considered a better **stent** placement strategy, but this has not yet been proved by appropriately designed studies. The objective of this randomized trial was to assess the role of high-pressure dilatation in the early and late outcome of patients undergoing coronary **stent** placement. Methods and Results-Consecutive patients with coronary **stent** placement were randomly assigned to high- (15 to 20 atm, 468 patients) or low- (8 to 13 atm, 466 patients) balloon-pressure dilatation. The primary end point of the study was the event-free survival at 1 year. Secondary end points were the incidence of **stent** thrombosis at 30 days and angiographic restenosis (gtoreq50% diameter stenosis) at 6 months. The incidence of **stent** thrombosis was 1.7% in the high-pressure and 1.9% in the low-pressure group (relative risk 0.89; 95% CI 0.30 to 2.56). During the first 30 days, although there was no significant difference in the incidence of Q-wave myocardial infarction, the incidence of non-Q-wave infarction was 6.4% in the high-pressure and 3.4% in the low-pressure group (relative risk 1.87; 95% CI 1.02 to 3.42). The restenosis rate was 30.4% in the high-pressure and 31.4% in the low-pressure group (relative

risk 0.97; 95% CI 0.75 to 1.26). Event-free survival at 1 year was not significantly different between the groups, with 78.8% in high-pressure patients and 75.5% in patients assigned to low-pressure dilatation (hazard ratio 0.85; 95% CI 0.65 to 1.11). Conclusions-The systematic use of high-balloon-pressure inflation (15 to 20 atm) during coronary **stent** placement is not associated with any significant influence on the 1-year outcome of patients undergoing this intervention.

6/5/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11743530 BIOSIS NO.: 199800524226
One-year clinical and six-month angiographic results from a randomized multicentre trial comparing high vs. normal balloon pressure for coronary stent **placement.**
AUTHOR: Hausleiter J; Dirschinger J; Schuehlen H; Elezi S; Giehrl W; **Boekstegers P** ; Pache J; Wehinger A; Kastrati A; Steinbeck G; Schoemig A
JOURNAL: European Heart Journal 19 (ABST. SUPPL.):p503 Aug., 1998
ISSN: 0195-668X

6/5/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11743527 BIOSIS NO.: 199800524223
High-risk stent **implantation in patients with substantially increased risk for bypass operation.**
AUTHOR: Giehrl W; Von Degenfeld G; Heinrich D; **Boekstegers P**
JOURNAL: European Heart Journal 19 (ABST. SUPPL.):p502 Aug., 1998
ISSN: 0195-668X

6/5/11 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11367007 BIOSIS NO.: 199800148339
A multicenter randomized trial comparing five different types of slotted-tube stents .
AUTHOR: Hausleiter J(a); Dirschinger J(a); Schuehlen H(a); Giehrl W; Walter H(a); Pache J(a); Elezi S(a); Wehinger A(a); **Boekstegers P** ; Steinbeck G ; Schoemig A(a
JOURNAL: Journal of the American College of Cardiology 31 (2 SUPPL. A):p 80A Feb., 1998
ISSN: 0735-1097

6/5/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11366733 BIOSIS NO.: 199800148065
High versus normal balloon pressure dilatation for coronary stent **placement. 6-Month clinical and angiographic results from a randomized**

multicenter trial.
AUTHOR: Drischinger J(a); Hausleiter J(a); Schuehlen H(a); Gierhrl W; Walter H(a); Pache J(a); Kastrati A(a); Elezi S(a); Wehinger A(a); Hadamitzky M(a); **Boekstegers P** ; Steinbeck G
JOURNAL: Journal of the American College of Cardiology 31 (2 SUPPL. A):p 17A Feb., 1998
ISSN: 0735-1097

6/5/13 (Item 13 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11237467 BIOSIS NO.: 199800018799
A randomized trial of low versus high balloon pressure for coronary stent **placement: Analysis of early outcome.**
AUTHOR: Dirschinger Josef(a); Schuehlen Helmut(a); Hausleiter Joerg(a); Eliezi Shpend; **Boekstegers Peter** ; Giehrl Wolfgang; Pache Juergen; Walter Hanna; Alt Eckhardt; Neumann Franz-Josef J; Steinbeck Gerhard; Schoemig Albert
JOURNAL: Circulation 96 (8 SUPPL.):pI653 10/21/97, 1997
ISSN: 0009-7322

6/5/14 (Item 14 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

10680191 BIOSIS NO.: 199799301336
Electron beam tomography: Non-invasive evaluation of coronary stents .
AUTHOR: Haberl Ralph; V Smekal Alexander; Knez Andreas; **Boekstegers Peter** ; Giehrl Wolfgang; Reiser Maximilian; Steinbeck Gerhard
JOURNAL: Circulation 94 (8 SUPPL.):pI14 1996
CONFERENCE/MEETING: 69th Scientific Sessions of the American Heart Association New Orleans, Louisiana, USA November 10-13, 1996
ISSN: 0009-7322

6/5/15 (Item 15 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

10661294 BIOSIS NO.: 199699282439
Non-invasive evaluation of coronary stents **with ultrafast computer tomography.**
AUTHOR: Haberl R(a); V Smekal A; Knez A; **Boekstegers P** ; Giehrl W; Reiser M; Steinbeck G
JOURNAL: European Heart Journal 17 (ABSTR. SUPPL.):p171 1996
ISSN: 0195-668X

6/5/16 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

10761406 EMBASE No: 2000241310
Influence of stent **design on 1-year outcome after coronary** stent

placement: A randomized comparison of five stent **types in 1,147 unselected patients**

Kastrati A.; Dirschinger J.; **Boekstegers P.** ; Elezi S.; Schuhlen H.; Pache J.; Steinbeck G.; Schmitt C.; Ulm K.; Neumann F.-J.; Schomig A.

Catheterization and Cardiovascular Interventions (CATHETER. CARDIOVASC. INTERVENTIONS) (United States) 2000, 50/3 (290-297)
CODEN: CARIF ISSN: 1522-1946

The objective of this randomized trial was to assess whether differences in **stent** design are translated in different clinical outcomes in patients undergoing coronary **stent** placement. This multicenter randomized trial included 1,147 patients who were randomly assigned to receive one of five types of stainless steel **stents** : Inflow, MULTI-LINK, NIR, Palmaz-Schatz, and PURA-A **stent** . Primary endpoint of the study was event-free survival at 1 year. Event-free survival at 1 year was significantly different between the groups (P = 0.014), ranging from 69.4% to 82.4%. Similarly, freedom from myocardial infarction was also significantly different (P = 0.022), with values between 88.2% and 95.2%. Diameter stenosis at 6 months varied from 38.1% +/- 25.0% to 45.6% +/- 27.7% (P = 0.046), late lumen loss ranged from 1.01 +/- 0.70 mm to 1.20 +/- 0.82 mm (P = 0.085), and the incidence of restenosis varied between 25.3% and 35.9% (P = 0.145). Thus, **stent** design has a significant impact on the long-term results after coronary **stent** placement. (C) 2000 Wiley-Liss, Inc.

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Set     Items   Description
S1        174   AU='BOEKSTEGERS M PETER':AU='BOEKSTEGERS PETER'
S2        136   S1 NOT PY>2000
S3        136   S2 NOT DT=PATENT
S4         21   S3 AND STENT?
S5         16   RD (unique items)
S6         16   S5 NOT PD>20000504
? show files
File   5:Biosis Previews(R) 1969-2003/Apr W4
         (c) 2003 BIOSIS
File  73:EMBASE 1974-2003/Apr W4
         (c) 2003 Elsevier Science B.V.
File 155:MEDLINE(R) 1966-2003/Apr W4
         (c) format only 2003 The Dialog Corp.
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B;b1.0 Patents

8/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014179112 **Image available**
WPI Acc No: 2001-663340/200176
XRPX Acc No: N01-494253
Methods and devices for delivering a ventricular stent
Patent Assignee: PERCARDIA INC (PERC-N)
Inventor: BOEKSTEGERS P
Number of Countries: 096 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200182837	A2	20011108	WO 2001US40655	A	20010503	200176 B
AU 200181277	A	20011112	AU 200181277	A	20010503	200222
US 20020045928	A1	20020418	US 2000201732	P	20000504	200228
			US 2001845154	A	20010501	
EP 1280473	A2	20030205	EP 2001959755	A	20010503	200310
			WO 2001US40655	A	20010503	

Priority Applications (No Type Date): US 2000201732 P 20000504; US 2001845154 A 20010501
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200182837	A2	E	45	A61F-002/06	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200181277	A		A61F-002/06	Based on patent WO 200182837
US 20020045928	A1		A61F-002/06	Provisional application US 2000201732
EP 1280473	A2	E	A61B-019/00	Based on patent WO 200182837

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200182837 A2
NOVELTY - A hollow transparent needle punctures the anterior wall (16) of the **coronary artery** . The posterior wall (14) is punctured where the **stent** (12) is to be implanted. The needle is advanced through the heart wall (HW) until a reflux of blood is seen. A depth indicator shows the **balloon** length required. A **guide wire** , catheter and **balloon** are inserted and the **balloon** inflated. A **stent** is then positioned.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the related tools.
USE - For cardiac surgery.
ADVANTAGE - Improved effectiveness.
DESCRIPTION OF DRAWING(S) - The diagram shows a catheter carrying a delivery **balloon** loaded with a **stent** , with the **balloon** extending past the ends of the **stent** so as to form mechanical stops upon inflation of the **balloon** .
pp; 45 DwgNo 8/15
Title Terms: METHOD; DEVICE; DELIVER; **VENTRICLE** ; **STENT**
Derwent Class: P31; P32
International Patent Class (Main): A61B-019/00; A61F-002/06
File Segment: EngPI

8/5/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013540891 **Image available**
WPI Acc No: 2001-025097/200103
XRPX Acc No: N01-019553

Delivery system particularly for treating coronary artery **blockage by providing a bypass through the myocardium involves advancing a delivery catheter through the blockage or around the blockage through a vein, channel or tunnel**

Same assignee

Patent Assignee: PERCARDIA INC (PERC-N); FURNISH G R (FURN-I); FURNISH S M (FURN-I); HALL T A (HALL-I); PHELPS D Y (PHEL-I); POMPILI V (POMP-I); WILK P J (WILK-I); WOLF S J (WOLF-I)
Inventor: FURNISH G R; FURNISH S M; HALL T A; PHELPS D Y; POMPILI V; WILK P J; WOLF S J
Number of Countries: 089 Number of Patents: 011
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200071195	A1	20001130	WO 99US20483	A	19990910	200103 B
AU 9963845	A	20001212	AU 9963845	A	19990910	200115
US 6196230	B1	20010306	US 98150181	A	19980910	200115
EP 1112102	A1	20010704	EP 99951403	A	19990910	200138
			WO 99US20483	A	19990910	
US 6261304	B1	20010717	US 98150181	A	19980910	200142
			US 99368868	A	19990804	
US 20010034547	A1	20011025	US 98150181	A	19980910	200170
			US 99368868	A	19990804	
			US 2001796590	A	20010302	
US 20010039445	A1	20011108	US 98150181	A	19980910	200171
			US 2000710884	A	20001114	
			US 2001891663	A	20010627	
US 6387119	B2	20020514	US 98150181	A	19980910	200239
			US 99368868	A	19990804	
			US 2001796590	A	20010302	
US 6409751	B1	20020625	US 98150181	A	19980910	200246
			US 2000710884	A	20001114	
US 20020100484	A1	20020801	US 98150181	A	19980910	200253
			US 99368868	A	19990804	
			US 2001796590	A	20010302	
			US 200292916	A	20020308	
JP 2003500121	W	20030107	WO 99US20483	A	19990910	200314
			JP 2000619496	A	19990910	

Priority Applications (No Type Date): US 99368868 A 19990804; US 98150181 A 19980910; US 2001796590 A 20010302; US 2000710884 A 20001114; US 2001891663 A 20010627; US 200292916 A 20020308
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200071195	A1	E	120	A61M-025/01	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9963845	A		A61M-025/01	Based on patent WO 200071195
US 6196230	B1		A61B-019/00	
EP 1112102	A1	E	A61M-025/01	Based on patent WO 200071195

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

US 6261304	B1	A61M-029/00	CIP of application US 98150181
US 20010034547	A1	A61F-002/06	CIP of application US 98150181 Cont of application US 99368868 CIP of patent US 6196230 Cont of patent US 6261304
US 20010039445	A1	A61F-002/06	Cont of application US 98150181 Cont of application US 2000710884 Cont of patent US 6196230
US 6387119	B2	A61F-002/06	CIP of application US 98150181 Cont of application US 99368868 CIP of patent US 6196230 Cont of patent US 6261304
US 6409751	B1	A61F-002/06	Cont of application US 98150181 Cont of patent US 6196230
US 20020100484	A1	A61B-019/00	CIP of application US 98150181 Cont of application US 99368868 Cont of application US 2001796590 CIP of patent US 6196230 Cont of patent US 6261304 Cont of patent US 6387119
JP 2003500121	W	128 A61B-017/00	Based on patent WO 200071195

Abstract (Basic): WO 200071195 A1

NOVELTY - The bypass device is delivered using a **guidewire** (100) with a turning mechanism for turning the distal end toward the heart wall and an anchoring mechanism for anchoring the **guidewire** to the heart wall. The turning mechanism comprises a delivery catheter (40,70) formed as a long tube enclosing the **guidewire** where the tube distal end is spring biased into an arc, or steered by two inflatable **balloons** (50) or one inflatable **balloon** (80) with a side port (82).

USE - System for delivering a **stent** , conduit, dilation catheter or other device into a patient's heart wall or myocardium for treating blocked or clogged **coronary arteries** , aneurysms, and particularly for providing a bypass through the myocardium from the left **ventricle** into a **coronary artery** .

ADVANTAGE - Provides a system for delivering devices at an angled bend for transverse insertion into the myocardium, and a system for advancing a delivery catheter to a puncture site in a **coronary vessel** when the vessel blockage is too large to permit catheter passage through the vessel. It also provides a delivery system for treating aneurysms by enclosing the aneurysm using an inflatable **balloon** containing a perfusion lumen, and inserting embolic elements, e.g. **wire** , delivered through the catheter.

DESCRIPTION OF DRAWING(S) - The drawings show a side view and a cross-sectional view of delivery catheters according to embodiments of the invention in a blocked **coronary artery** .

Delivery catheter (40,70)

Inflatable **balloons** (50,80)

Side port (82)

Guidewire . (100)

pp; 120 DwgNo 16, 21B/36

Title Terms: DELIVER; SYSTEM; TREAT; CORONARY; ARTERY; BLOCK; THROUGH; MYOCARDIUM; ADVANCE; DELIVER; CATHETER; THROUGH; BLOCK; BLOCK; THROUGH; VEIN; CHANNEL; TUNNEL

Derwent Class: P31; P32; P34

International Patent Class (Main): A61B-017/00; A61B-019/00; A61F-002/06; A61M-025/01; A61M-029/00

International Patent Class (Additional): A61M-025/00

File Segment: EngPI

```
Set     Items   Description
S1       6214   ATRIUM? ? OR ATRIA? ? OR VENTRICLE? ? OR VENTRICULAR?
S2       3445   CORONARY(2N)(ARTERY OR ARTERIES OR VESSEL? ?)
S3    1381670   GUIDE? ? OR GUIDEWIRE? ? OR WIRE? ?
S4     456767   BALLOON? ? OR EXPANS? OR EXPAND?
S5      21740   STENT? OR PROSTHES?S
S6          2   S1 AND S2 AND S3 AND S4 AND S5
S7          2   IDPAT (sorted in duplicate/non-duplicate order)
S8          2   IDPAT (primary/non-duplicate records only)
? show files
File 347:JAPIO Oct 1976-2002/Dec(Updated 030402)
         (c) 2003 JPO & JAPIO
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200328
         (c) 2003  Thomson Derwent
File 371:French Patents 1961-2002/BOPI 200209
         (c) 2002 INPI.  All rts. reserv.
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FT Patents

12/5,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01406161
Method and apparatus for delivery of therapeutic agents to the heart
PATENT ASSIGNEE:
HEARTPORT, INC., (2074211), 700 Bay Road, Redwood City, CA 94063, (US), (Applicant designated States: all)
INVENTOR:
Stevens, John H., 727 E Loma Verde Avenue, Pala Alto,CA 94303, (US)
Brewer, Richard, 115 Ericson Road, Hillsborough, CA 94010, (US)
Rosenman, Daniel C., 1415 Waller Street,No 3, San Francisco, CA 94117, (US)
Gifford, Hanson S., 3180 Woodside Road, Woodside, CA 94062, (US)
LEGAL REPRESENTATIVE:
Fisher, Adrian John et al (52611), CARPMAELS & RANSFORD 43 Bloomsbury Square, London WC1A 2RA, (GB)
Bad Date
PATENT (CC, No, Kind, Date): EP 1188417 A2 020320 (Basic)
APPLICATION (CC, No, Date): EP 2001307612 010907;
PRIORITY (CC, No, Date): US 656637 000907
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: **A61B-019/00**

ABSTRACT EP 1188417 A2
A method and system for delivering a therapeutic agent directly to the heart employing minimally invasive techniques and concepts. In particular. the delivery of vascular endothelial growth factors (VEGF) is performed endovascularly or endoscopically to a region of a patient's heart treated with transmyocardial revascularization (TMR). A system is provided for inducing cardioplegic arrest. An aortic occlusion device has an inflatable balloon which occludes the ascending aorta when inflated. Cardioplegic fluid may be infused through a lumen of the aortic occlusion device to stop the heart while the patient's circulatory system is supported on cardiopulmonary bypass. A side-firing fiberoptic laser is introduced through the aortic occlusion device in the endovascular technique to perform TMR. Subsequently, a therapeutic agent delivery catheter is directed into one of the coronary arteries to deliver and dissipate the VEGF into the surrounding vascular plexus to promote angiogenesis stimulation. Alternatively, a therapeutic agent delivery material saturated or coated with VEGF could be sutured to the epicardial surface of the heart, using thoracoscopic techniques.
ABSTRACT WORD COUNT: 168
NOTE:
Figure number on first page: 2

LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 020320 A2 Published application without search report
LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION 20-30 passageways or channels in an ischemic myocardium which penetrate therethrough into the left **ventricular** chamber. In theory, the channels act as conduits to perfuse oxygenated blood from the left **ventricle** into the extensive intramyocardial vascular plexus. In essence, at the immediate treated site of the...of the aortic occlusion device and

advanced through the aortic valve and into the left **ventricle** . The side-firing laser catheter is then directed toward the endocardium where a series of...

...blood vessels including ablation of an electrophysiological node within the heart walls for treatment of **atrial** or **ventricular** tachycardia or other electrophysiological problems.

After completion of the first endovascular procedure, another endovascular procedure...which is advanced through the aortic occlusion device 320 in the manner described above.

The **stent** delivery catheter 547 has a balloon 536 mounted to a shaft 537. The **stent** 548 is mounted, in a compressed state, over the balloon 536. A fluid-filled syringe...

...used to inflate the balloon 536. A guidewire 560 may be used to advance the **stent** delivery catheter 547 through the **coronary artery** 51 to the site of a coronary stenosis 102. The **balloon** 536, which is deflated with the **stent** 548 mounted thereon, is then advanced across the stenosis 102 as shown in Fig. 14A. Fig. 14B illustrates that when the **balloon** 536 is inflated, the **stent** 548 is **expanded** to dilate the stenosis 102. The **balloon** 536 is then deflated and the catheter 547 is withdrawn leaving the **stent** 548 in the **coronary artery** 51 (Fig. 14C).

The stent 548 is preferably impregnated with a therapeutic agent for delivery...described above.

A separate lumen in the double-balloon catheter 555 opens into the right **atrium** 45 through aperture 561 to allow evacuation of the agent from the right heart. Bi...

12/5,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01371566
Apparatus for transvascular procedures
PATENT ASSIGNEE:
Transvascular, Inc., (2314510), 1505-D Adams Drive, Menlo Park, CA 94025, (US), (Applicant designated States: all)
INVENTOR:
Evard, Philip C., 357 Miller Way, Arroyo Grande, CA 93420, (US)
Flaherty, J. C., 242 Ipswich Road, Topsfield, MA 01983, (US)
Garibotto, John T., 9 Stuart Road, Peabody, MA 01960, (US)
Macaulay, Patrick E., 1426 Sprucewood Drive, San Jose, CA 95118, (US)
Machold, Timothy R., 65 Bernal Avenue, Moss Beach, CA 94038, (US)
Makower, Joshua, 177, Yerba Buena Avenue, Los Altos, CA 94022, (US)
Whitt, Jason B., 2616 Leavenworth Street, San Francisco, CA 94133, (US)
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PATENT (CC, No, Kind, Date): EP 1166721 A2 020102 (Basic)
APPLICATION (CC, No, Date): EP 2001120160 961011;
PRIORITY (CC, No, Date): US 5164 P 951013; US 10614 P 960202
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;

MC; NL; PT; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 954248 (EP 96936499)
INTERNATIONAL PATENT CLASS: **A61B-017/00 ; A61B-017/22**

ABSTRACT EP 1166721 A2
This invention is methods, devices, and systems for re-vascularization, and/or performing other medical procedures at a vascular or non-vascular intra-corporeal locations within a mammalian body. The methods generally comprise the formation of at least one extravascular passageway from a blood vessel to a vascular or non-vascular target location. In the re-vascularization methods the extravascular passageway is utilized as a conduit for accessing or performing procedures at the vascular or non-vascular target location. Also disclosed are catheter devices (100, 103) and systems (138) which are usable to form the extravascular passageways of the invention, as well as apparatus for modifying, maintaining and/or closing such extravascular passageways.
ABSTRACT WORD COUNT: 106
NOTE: Figure number on first page: 4A

LEGAL STATUS (Type, Pub Date, Kind, Text):
Application: 020102 A2 Published application without search report
Examination: 020102 A2 Date of request for examination: 20010905
Change: 020502 A2 Inventor information changed: 20020308
LANGUAGE (Publication,Procedural,Application): English; English; English

...SPECIFICATION full-thickness penetrations through the ischemic myocardial wall, and into the chamber of the left **ventricle** . Oxygenated blood from the left **ventricle** then flows outwardly through such penetration tracts, so as to perfuse the ischemic myocardium. Examples...

...distal of the optional second blood flow passageway 10b. These optional embolization member serve to **guide** the flow of arterial blood which enters the **coronary artery** CA through the first blood flow passageway 10a, through a segment of the adjacent coronary...

...impede flow such as coils; hemostatic materials such as collagen, Gelfoam(TM) or fibrin, covered **stents** or frames, detachable **balloons** , valve structures clips, fasteners or plugs, etc. Further, the function served by these members may...

12/5,K/3 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00978213 **Image available**
FLUID EXCHANGE SYSTEM FOR CONTROLLED AND LOCALIZED IRRIGATION AND ASPIRATION
Patent Applicant/Assignee:
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Inventor(s):
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GOFF Thomas M, 4715 S. Ogden Street, Englewood, CO 80110, US,
COURTNEY Brian K, Apartment 239, 275 Hawthorne Ave., Palo Alto, CA 94301, US,

Legal Representative:
MULVILLE Kurt T (et al) (agent), Lyon & Lyon LLP, Suite 4700, 633 West Fifth Street, Los Angeles, CA 90071-2066, US,

Bad Date

Patent and Priority Information (Country, Number, Date):
Patent: WO 200307797 A2 20030130 (WO 0307797)
Application: WO 2002US22850 20020717 (PCT/WO US0222850)
Priority Application: US 2001306315 20010717
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: **A61B**
Publication Language: English
Filing Language: English

English Abstract
The control of fluid introduction into and out of body conduits such as vessels, is of great concern in medicine. As the development of more particular treatments to vessels and organs continues it is apparent that controlled introduction and removal of fluids is necessary. Fluid delivery and removal from such sites, usually referred to as irrigation and aspiration, using fluid exchange devices that control also need to be considerate of potential volume and/or pressure in the vessel or organ are described together with catheter and lumen configurations to achieve the fluid exchange. The devices include several electrically or mechanically controlled embodiments and produce both controlled and localized flow with defined volume exchange ratios for fluid management. The applications in medicine include diagnostic, therapeutic, imaging, and uses for the introduction or removal of concentrations of emboli within body cavities.

Legal Status (Type, Date, Text)
Publication 20030130 A2 Without international search report and to be republished upon receipt of that report.

Detailed Description
... in clinical situations where blockages or lesions exist inside a blood vessel, such as a **coronary** or carotid **artery** , and dangers arise from the creation and release of emboli within the vessel. In many...

...blood vessel are treated by several therapeutic procedures including endarterectomy, atherectomy, the placement of intravessel **stents** , **balloon** angioplasty, surgical ablation of the lesion, thrombectomy, ... 104 (17) 11 Moreover, studies have shown that merely crossing a carotid lesion with a **guide wire** can generate emboli. Al-Mubarak et al.: Circulation 2001 OCT 23:104 (17): 1999 Also...also similar to the varying OC 1 1 5 pressures and pressure profile caused by **ventricular** contraction and the ordinary movement of blood throughout the arterial system. Finally, these specific fluid...

12/5,K/4 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00913914 **Image available**

SIDE BRANCH DILATATION CATHETER

CATHETER DE DILATATION POUR BRANCHE LATERALE

Patent Applicant/Assignee:
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Patent Applicant/Inventor:
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SCHWARTZ Robert S, 1123 Aubaz Lane S.W., Rochester, MN 55902, US, US (Residence), US (Nationality), (Designated only for: US)

Legal Representative:
ELLINGER Mark S (agent), Fish & Richardson P.C., P.A., Suite 3300, 60 South Sixth Street, Minneapolis, MN 55402, US,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200247591 A1 20020620 (WO 0247591)
Application: WO 2001US48074 20011213 (PCT/WO US0148074)
Priority Application: US 2000736276 20001215

Parent Application/Grant:
Related by Continuation to: US 2000736276 20001215 (CON)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **A61F-011/00**
International Patent Class: **A61F-002/06** ; **A61B-017/00** ; **A61B-017/02** ; A61M-029/00; A61M-025/10
Publication Language: English
Filing Language: English

English Abstract
A system for delivering a guide wire (15) to an artery (25) and a side branch vessel (30) of the artery (25) includes a delivery catheter (10, 200) and a pair of guide wires (15). The delivery catheter (10, 200) includes a first lumen (65) with a first opening (55) and a second lumen (75) with a second opening (60). The first guide wire (15) is configured to extend through the first lumen (65) and the second guide wire (15) is configured to extend through the second lumen (75). The first opening (55) is configured to direct the first guide wire (15) into the side branch vessel (30), and the second guide wire (15) is configured to direct the second guide wire (15) into the main artery (25).

Legal Status (Type, Date, Text)
Publication 20020620 A1 With international search report.
Publication 20020620 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.
Examination 20030109 Request for preliminary examination prior to end of 19th month from priority date

Detailed Description
... of plaque in an artery by a number of interventional. procedures, including atherectomy, angioplasty, and **stenting** . After obtaining arterial access, a guide wire is advanced into a **coronary artery** that has a buildup of plaque. An inflatable **balloon** catheter may be passed over the **guide wire** , advanced into the lesion, and inflated to increase the diameter of the lumen or deliver a **stent** . The **wire** and inflatable **balloon** catheter are then withdrawn from the **artery** ...

12/5,K/5 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00851891 **Image available**
BIORESORBABLE INFLATABLE DEVICES, INCISION TOOL AND METHODS FOR TISSUE EXPANSION AND TISSUE REGENERATION

Patent Applicant/Inventor:
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Legal Representative:
FRIEDMAN Mark M (agent), Beit Samueloff, 7 Haomanim St., 67897 Tel Aviv, IL,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200185062 A1 20011115 (WO 0185062)
Application: WO 2001IL408 20010509 (PCT/WO IL0100408)
Priority Application: US 2000567471 20000509
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: **A61F-002/02**
Publication Language: English
Filing Language: English

English Abstract
A tissue expansion device is composed of a hollow expanding pouch (5) made of resorbable material that can be attached to a cannula (6). The pouch (5) can be filled with biocompatible materials, one or more times in a few days interval, after the insertion of the device. While filling the pouch (5) every few days, the tissue expands and the filling material, if it is bioactive, starts to function. The cannula (6) is connected to the pouch (5) in one side and in the other side it can be filled and closed with a screw (7). There are three fixation components. One fixating components is slot (8) and the other two are holes (9) for sutures.

Legal Status (Type, Date, Text)
Publication 20011115 A2 With international search report.
Publication 20011115 A2 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Correction	20011213	Corrected version of Pamphlet front pages: revised abstract received by the International Bureau after completion of the technical preparations for international publication
Republication	20011213	A1 With international search report.
Republication	20011213	A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.
Examination	20021114	Request for preliminary examination prior to end of 19th month from priority date

Detailed Description
Claim
... flat and smooth but has holes or protrusions. Briefly, and in general terms, when the **stent** is to be deployed in a **coronary artery** the **stent** is attached to a catheter prepared for PTCA angioplastY and using a **guidew** (inverted exclamation mark)re and tracked by a fluoroscope the **stent** is percutaneously introduced into 1 0 the vessel until the **stent** is positioned at the desired location.. To facilitate the placement of the **stent** of the present invention, the **stent** may be impregnated. with a radiopaque material, making it opaque, and therefore visible, to X...

12/5,K/6 (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

the patent

00849664 **Image available**
METHODS AND DEVICES FOR DELIVERING A VENTRICULAR **STENT**
PROCEDES ET DISPOSITIFS D'APPLICATION D'UN EXTENSEUR VENTRICULAIRE
Patent Applicant/Assignee:
PERCARDIA INC, Suite 202, 10 Al Paul Lane, Merrimack, NH 03054, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
BOEKSTEGERS Peter, Burgwaldstrasse 44, 86911 Diessen A, DE, DE (Residence), DE (Nationality), (Designated only for: US)
Legal Representative:
GARRETT Arthur S (et al) (agent), Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., 1300 I Street, N.W., Washington, DC 20005-3315, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200182837 A2-A3 20011108 (WO 0182837)
Application: WO 2001US40655 20010503 (PCT/WO US0140655)
Priority Application: US 2000201732 20000504
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: **A61B-019/00**
International Patent Class: **A61F-002/06**
Publication Language: English
Filing Language: English

English Abstract

The present invention pertains to a method, and related tools for performing the method, of delivering a stent or other like-device to the heart to connect the left **ventricle** to the coronary artery to thereby supply blood directly from the **ventricle** to the coronary artery. The method may be used to bypass a total or partial occlusion of a coronary artery. In a preferred embodiment, the inventive method of providing direct blood flow between a heart chamber and a coronary vessel includes placing a guide device and a dilation device through an anterior wall and a posterior wall of the coronary vessel and through a heart wall between the heart chamber and the coronary vessel, the dilation device forming a passageway in the heart wall at a location defined by the guide device, and placing a stent within the passageway.

Legal Status (Type, Date, Text)

Publication	20011108	A2 Without international search report and to be republished upon receipt of that report.
Examination	20020214	Request for preliminary examination prior to end of 19th month from priority date
Search Rpt	20020613	Late publication of international search report
Republication	20020613	A3 With international search report.
Republication	20020613	A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

12/5,K/7 (Item 7 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

00836959 **Image available**

METHOD AND SYSTEM FOR BYPASSING AN ARTERY BLOCK

PROCEDE ET SYSTEME SERVANT A EFFECTUER UN PONTAGE ARTERIEL

Patent Applicant/Inventor:
SOLEM Jan Otto, Wallenruttistrasse 14, CH-8234 Stetten, CH, CH (Residence), NO (Nationality)
Legal Representative:
BERGLUND Gustav Arthur (agent), Awapatent AB, Box 5117, S-200 71 Malmo, SE,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200170133 A2-A3 20010927 (WO 0170133)
Application: WO 2001EP3104 20010319 (PCT/WO EP0103104)
Priority Application: SE 2000900 20000320
Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: **A61F-002/06**
International Patent Class: **A61B-017/32** ; A61M-025/06
Publication Language: English
Filing Language: English

English Abstract

A catheter system for use in bypassing a blocking (3) in an artery (1) comprises four components. These components are an arterial catheter, an intravenous ultrasound catheter, a guide-wire system, and finally a covered stent (4) used as graft. The bypassing of the blocking (3) in the artery (1) which extends along a vein (2) comprises the steps of forming a first connection (6) between said artery (1) and said vein (2) proximal to the blocking (3) in the artery (1), forming a second connection (7) between said artery (1) and said vein (2) distal to the blocking (3) in the artery (1), introducing a covered stent (4) through said artery (1) proximal to the blocking (3) therein, through said first connection (6) into said vein (2), via said vein (2) to and through said second connection (7), and into said artery (1) distal to the blocking (3) therein, such that a proximal end (9) of the covered stent (4) is positioned in the artery (1) proximal to the blocking (3) therein and a distal end (10) of the covered stent (4) is positioned in the artery (3) distal to the blocking (3) therein, and fixing the proximal and distal ends (9, 10) of the covered stent (4) within the artery (1).

Legal Status (Type, Date, Text)
Publication 20010927 A2 Without international search report and to be republished upon receipt of that report.
Examination 20011227 Request for preliminary examination prior to end of 19th month from priority date
Search Rpt 20020228 Late publication of international search report
Republication 20020228 A3 With international search report.

Detailed Description

Claim

... 2 still is able to let a stream of blood flow back towards the right **atrium** past the blocking 3 in the adjacent artery 1. At the same time, a stream...coronary artery 102 5 distally of the block 103, cf. Fig. 31. Finally, a covered **stent** 4, e.g. as described in U.S. Patent Application Serial Number 09/461,379 (JAN OTTO SOLEM), or any other covered **stent** graft is mounted on a **balloon** on a catheter 113 and is inserted over the single **wire** 19, 31 from the femoral **artery** through the **coronary artery** 101, through the connection in the walls of the **coronary artery** 101 and the coronary vein 102 proximally of the block 103, ...vein 102, through the connection in the walls of the coronary vein 102 and the **coronary artery** 101 distally of the block 103, back into the **coronary artery** distally of the block 103. Now, the proximal end of the covered **stent** is positioned in the **coronary artery** 101 proximal to the blocking 103, and a distal end of the covered **stent** is positioned in the artery 101 distal to the blocking 103, cf. Fig. 32. Finally, the proximal and distal ends 9, 10 of the covered **stent** 4 are fixed in the **coronary artery** 101 by inflating said **balloon** , which is then deflated and with drawn with the catheter 113. Thereby, the covered **stent** 4 will bypass the block 103 in the **coronary artery** 101, as also shown in Fig. 2. It should be noted that since the vein 102 is much wider than the covered **stent** , i.e. the cross-sectional area of the vein is substantially larger than that of the covered **stent** (and the **coronary artery**), the bypass does not obstruct the flow of blood in the coronary vein.

Referring to...

...103 via the connection between the vein 102 back into the artery 101. The covered **stent** 4 is then advanced over the **wire** 19 and deployed as

described with respect to Fig. 32. Referring back to Figs. 53-56, it should be understood that the catheter 251 may alternatively be readvanced along the **wire** 19 using well-known rapid exchange techniques (not shown), or via a hypotube or addi...

12/5,K/8 (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00787913 **Image available**
GUIDE WIRE DEVICE FOR REMOVING SOLID OBJECTS FROM BODY CANALS
DISPOSITIF DE FIL GUIDE SERVANT A ENLEVER DES OBJETS SOLIDES DANS DES VOIES CORPORELLES

Patent Applicant/Assignee:
METAMORPHIC SURGICAL DEVICES LLC, 660 William Pitt Way, Pittsburg, PA 15238, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
CANO Gerald G, 157 Crescent Hills Road, Pittsburgh, PA 15235, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
ZIESENHEIM Frederick B (et al) (agent), Webb Ziesenheim Logsdon Orkin & Hanson, P.C., 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA 15219-1818, US,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200121077 A1 20010329 (WO 0121077)
Application: WO 2000US25320 20000914 (PCT/WO US0025320)
Priority Application: US 99400336 19990921
Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Main International Patent Class: **A61B-017/24**
International Patent Class: **A61B-017/26**
Publication Language: English
Filing Language: English

English Abstract
A vascular filter for capturing and removing emboli includes a sack (12) having a mouth (14) and a closed bottom (16) opposite the mouth (14). A guide wire (4) is received through the mouth (14) of the sack (12) and projected through the closed bottom (16) of the sack (12). The closed bottom (16) of the sack (12) is connected to the projection of the guide wire (4) therethrough. A collapsible frame (8) is connected between the guide wire (4) and the mouth (14) of the sack (12). The collapsible frame (8) biases the mouth (14) of the sack (12) open around the guide wire (4). A tube (6) slidably receives the guide wire (4) coaxially therein. The collapsible frame (8) is moveable via the guide wire (4) between outside the tube (6) where the mouth (14) of the sack (12) is biased open

by the collapsible frame (8) and inside the tube (6) where the mouth (14) of the sack (12) is closed, and vice versa.

Legal Status (Type, Date, Text)
Publication 20010329 A1 With international search report.
Examination 20010802 Request for preliminary examination prior to end of 19th month from priority date

Detailed Description
... related to a genetic propensity or a physiologic response to foreign material such as atrio **ventricular** grafts in dialysis patients, Chronic formation causes the gradual reduction in the lumen of a disease, **atrial** fibrillation and blunt force trauma.

The Fogarty balloon catheter is meant for acute cases. The the treatment of stenosis, In this **guide wire** /catheter-based procedure, a high-pressure **balloon** is'positioned across the stenosis and inflated to deform the stenotic lesion to augment the...

...thus return adequate blood flow, The vessel may receive additional radial support by positioning and **expanding** a coronary **stent** across the lesion.

clinical experience now indicates that, within five to ten years of CABG...

...stopping the heart, clamping the aorta near its origin at the top of the left **ventricle** , placing the patient on external by-pass, locating the coronary artery or arteries that are...

12/5,K/9 (Item 9 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00777167 **Image available**
CORKSCREW REINFORCED LEFT VENTRICLE **TO CORONARY ARTERY CHANNEL**
CANAL ENTRE VENTRICULE GAUCHE ET ARTERE CORONAIRE RENFORCE PAR UN SERPENTIN
Patent Applicant/Assignee:
PERCARDIA INC, Suite 202, 10 Al Paul Lane, Merrimak, NH 03054, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
CAHALAN Patrick, 8 Westchester Road, Windham, NH 03087, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
GARRETT Arthur S, Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., 1300 I Street, N.W., Washington, DC 20005-3315, US
Patent and Priority Information (Country, Number, Date):
Patent: WO 200110340 A1 20010215 (WO 0110340)
Application: WO 2000US21120 20000803 (PCT/WO US0021120)
Priority Application: US 99147210 19990804
Designated States: AU CA JP US
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Main International Patent Class: **A61F-002/00**
Publication Language: English
Filing Language: English

English Abstract
A coil is screwed into the heart wall HW between the left **ventricle** and

coronary artery, followed by forming of a channel with laser, plasma, electrical, or mechanical device therethrough.

Legal Status (Type, Date, Text)
Publication 20010215 A1 With international search report.
Examination 20010503 Request for preliminary examination prior to end of 19th month from priority date

Detailed Description
...to another, and more particularly, to a device that can communicate blood between the left **ventricle** and coronary arteries or veins.

...chronic inflammatory response. and maybe even to dislodgement of the tube. For a collapsible or **expandable** " **wire** " **stent** the constant movement can lead to fracture from cyclic fatigue (this has been documented in vivo humans - by **Stent** Medtronic). With respect to blood compatibility a solid tube presents maximum foreign surface to the blood of materials that are all relatively thrombogenic. While a **wire** or open **stent** design has less surface area exposed to blood. the profile of the **stent** in the f10'"T field is less optimal and requires optimal placement.

SuniniaKy of the...

12/5,K/10 (Item 10 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00551774 **Image available**
TRANSMYCARDIAL SHUNT AND ITS ATTACHMENT MECHANISM, FOR LEFT VENTRICULAR **REVASCULARIZATION**
SHUNT TMR
Patent Applicant/Assignee:
PERCARDIA INC,
PHELPS David Y,
FURNISH Greg R,
HALL Todd A,
GRIFFIN Mark,
WOLF Scott J,
WILK Peter J,
SCHMELTER Jay W,
FURNISH Simon M,
RENATI Richard J,
MELSKY Gerald,
GUILES Marvin,
Inventor(s):
PHELPS David Y,
FURNISH Greg R,
HALL Todd A,
GRIFFIN Mark,
WOLF Scott J,
WILK Peter J,
SCHMELTER Jay W,
FURNISH Simon M,
RENATI Richard J,
MELSKY Gerald,

GUILES Marvin,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200015147 A1 20000323 (WO 0015147)
Application: WO 99US20714 19990910 (PCT/WO US9920714)
Priority Application: US 9899767 19980910; US 98104397 19981015; US 99147202 19990804; US 99147218 19990804; US 99369048 19990804
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Main International Patent Class: **A61F-002/06**
Publication Language: English

English Abstract
A conduit is provided to provide a bypass around a blockage in the **coronary artery** . The conduit is adapted to be positioned in the myocardium or heart wall to provide a passage for blood to flow between a chamber of the heart such as the left **ventricle** and the **coronary artery** , distal to the blockage. The **stent** is self- **expanding** or uses a **balloon** to **expand** the **stent** in the heart wall. Various attachment means are provided to anchor the **stent** and prevent its migration. In one embodiment, a conduit is provided having a distal top which is more preferably a ball top, **wire** top, flare top or flip-down top. These top configurations anchor the shunt at one end in the **coronary artery** .

12/5,K/11 (Item 11 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00551773 **Image available**
TRANSMYOCARDIAL SHUNT FOR LEFT VENTRICULAR **REVASCULARIZATION**
SHUNT DE REVASCULARISATION TRANSMYOCARDIQUE
Patent Applicant/Assignee:
PERCARDIA INC,
WILK Peter J,
KAMM Roger D,
SHIM Eun Bo,
Inventor(s):
WILK Peter J,
KAMM Roger D,
SHIM Eun Bo,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200015146 A1 20000323 (WO 0015146)
Application: WO 99US20484 19990910 (PCT/WO US9920484)
Priority Application: US 9899691 19980910; US 9899720 19980910; US 9899767 19980910; US 98104397 19981015; WO 99US3484 19990217; US 99369039 19990804
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Main International Patent Class: **A61F-002/06**

Publication Language: English

English Abstract

Left **ventricular** conduits and related methods are disclosed for achieving bypass of a partially or completely occluded coronary artery. More broadly, conduits for allowing communication of bodily fluids from one portion of a patient's body to another and related methods are disclosed, including conduits for forming a blood flow path from a chamber of the heart to a vessel or from one vessel to another. In other embodiments, the conduits achieve a coronary artery bypass by allowing blood communication between the left **ventricle** and the coronary artery or between a proximal portion of the coronary artery and a distal portion of the coronary artery. The conduits may be placed completely through the heart wall or extend only partially therein. Conduits may take on a variety of configurations for allowing the control of blood flow therethrough, including curved or tapered shapes. The conduits may also follow a variety of paths, including direct transmyocardial communication between the left **ventricle** and the coronary artery, or through the myocardium and into the intrapericardial space and then into the coronary artery. The conduits may be implanted through a variety of methods, including minimally invasive techniques. Also disclosed are various preferred embodiments of medical devices and related methods for implanting the conduits including rigid delivery rods for penetrating bodily tissue. The delivery rods may be solid, thus being trocar-like, or hollow to form a self-implantable conduit. Other preferred rod embodiments may have the conduits mounted thereon and take the form of a stylet or the like. The conduits may be one-piece, continuous conduits or made up of a number of plural sections joined together. Disclosures of various anastomosis devices are provided.

Detailed Description

... versa, and/or vessel to vessel. Even more particularly, the invention relates to a left **ventricular** conduit and related conduit configurations for controlling the flow of blood through the conduit to ...

...5,662,124, and 5,429,144). These Wilk references teach the use of a **stent** which is introduced through the myocardial wall from an adjacent **coronary artery** to provide a bypass conduit between the left **ventricle** and the adjacent **coronary artery** . In one embodiment, this technique teaches the delivery of a transmyocardial bypass shunt in a collapsed, reduced-profile configuration, which requires radial **expansion** subsequent to delivery in a bore pre-formed in the myocardial wall. The bore is formed, for example, by a drill, needle, Seldinger **wire** , dilating **wires** or catheters, or other devices prior to **stent** placement and **expansion** .

In another embodiment, Wilk discloses the disposition of a stent in the myocardium so that...

12/5,K/12 (Item 12 from file: 349)

00548795 **Image available**

SYSTEM AND METHODS FOR CATHETER PROCEDURES WITH CIRCULATORY SUPPORT IN HIGH

RISK PATIENTS

Patent Applicant/Assignee:
CARDEON CORPORATION,
Inventor(s):
SAMSON Wilfred J,
MACOVIAK John A,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200012168 A1 20000309 (WO 0012168)
Application: WO 99US19738 19990830 (PCT/WO US9919738)
Priority Application: US 9898724 19980901
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Main International Patent Class: A61M-025/10
International Patent Class: **A61B-017/12**
Publication Language: English

English Abstract

A system and methods are described for performing catheter based procedures on high risk patients that mitigate the risk to the patient and extend the acceptable time window for response when emergencies or complications arise. The system combines a therapeutic or diagnostic catheter subsystem with a selective aortic perfusion and cardiopulmonary bypass subsystem. The catheter subsystem may include catheters for angioplasty, stent delivery, atherectomy, valvuloplasty or other diagnostic or therapeutic procedures. The selective aortic perfusion and cardiopulmonary bypass subsystem generally includes catheters and/or cannulas for draining blood from the patient's venous or arterial system, a perfusion pump, a blood oxygenator, at least one blood heat exchanger and catheters and/or cannulas for perfusing oxygenated blood into the patient's arterial system. The arterial perfusion catheters and/or cannulas are constructed with an upstream flow control member located in the patient's ascending aorta and a downstream flow control member located in the patient's descending aorta. The external flow control members may take the form of inflatable occlusion balloons and/or selectively deployable external catheter flow control valves. The external flow control members may be mounted on a single elongated catheter or cannula shaft or they may be mounted on separate catheter or cannula shafts for independent placement and deployment.

Detailed Description

... superior vena cava, the femoral vein or the 'ugular vein, and/or into the right **ventricle** . The venous cannula 106 may be inserted J is through a peripheral venous access, such...

...or through a central access into the inferior or superior vena cava or the right **ventricle** . The venous cannula 106 has at least one drainage lumen for draining venous blood from...bypass with cardioplegic arrest.

The system includes a therapeutic catheter subsystem, for example a coronary **stent** 3 0 placement subsystem is illustrated, including a **stent** placement catheter 490, which may be an angioplasty balloon catheter, a guiding catheter 105 and...

...the shunt conduit 474, as illustrated, particularly for catheter procedures in the heart or the **coronary arteries** .

Alternatively, the catheters of the therapeutic catheter subsystem may be placed exterior to the shunt...

12/5,K/13 (Item 13 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00548656 **Image available**
TRANSMYOCARDIAL IMPLANT
IMPLANT TRANSMYOCARDIAQUE
Patent Applicant/Assignee:
HEARTSTENT CORPORATION,
Inventor(s):
TWEDEN Katherine S,
VANNEY Guy P,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200012029 A1 20000309 (WO 0012029)
Application: WO 99US19208 19990824 (PCT/WO US9919208)
Priority Application: US 98141284 19980827
Designated States: AE AL AM AT AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ CZ DE DE DK DK DM EE EE ES FI FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Main International Patent Class: **A61F-002/06**
International Patent Class: **A61B-017/11**
Publication Language: English

English Abstract
A transmyocardial implant establishes a blood flow path through a myocardium between a heart chamber and a lumen of a coronary vessel residing on an exterior of the heart. The implant (10) includes a coronary portion (12) sized to be received within the vessel. A myocardial portion (14) is sized to pass through the myocardium into the heart chamber. A transition portion (13) connects the coronary (12) and myocardial (14) portions for directing blood flow from the myocardial portion (14) to the coronary portion (12). The coronary portion (12) and the myocardial portion (14) have an open construction for permitting tissue growth across a wall thickness of the coronary portion (12) and the myocardial portion (14). The myocardial portion (14) includes an agent for controlling a coagulation cascade and platelet formation.

Detailed Description
... lumen of a coronary artery and passed through the myocardium to extend into the left **ventricle** of the heart. The conduit is rigid and remains open for blood flow to pass through the conduit during both systole and diastole. The conduit penetrates into the left **ventricle** in order to prevent tissue growth and occlusions over an opening of the conduit. The ...

...PCT International Application Publication No. WO 98/08456 describes a protrusive **stent** to form a passageway from the heart to a **coronary vessel** . The **stent** I 0 is described as **wire** mesh or other metal or polymeric

material and may be selfexpanding or pressure **expandable** . The application describes the **stent** may be covered by a partial or complete tubular covering of material including polyester, SUMMARY...

12/5,K/14 (Item 14 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00497899 **Image available**
METHOD AND APPARATUS FOR DELIVERY OF THERAPEUTIC AGENTS TO THE HEART
PROCEDE ET APPAREIL POUR LA LIBERATION D'AGENTS THERAPEUTIQUES DANS LE COEUR
Patent Applicant/Assignee:
HEARTPORT INC,
Inventor(s):
STEVENS John H,
BREWER Richard B,
ROSENMAN Daniel C,
GIFFORD Hanson S,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9929251 A1 19990617
Application: WO 98US25848 19981204 (PCT/WO US9825848)
Priority Application: US 97986917 19971208
Designated States: AU CA JP AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Main International Patent Class: **A61B-019/00**
Publication Language: English

English Abstract
A method and system for delivering a therapeutic agent directly to the heart employing minimally invasive techniques and concepts. In particular, the delivery of vascular endothelial growth factors (VEGF) is performed endovascularly or endoscopically to a region of a patient's heart treated with transmyocardial revascularization (TMR). A system is provided for inducing cardioplegia arrest. An aortic occlusion device (10) has an inflatable balloon (11) which occludes the ascending aorta (12) when inflated.

Detailed Description
... 20-30 passageways or channels in an ischernic myocardium which penetrate therethrough into the left **ventricular** chamber. In theory, the channels act as conduits to perfuse oxygenated blood from the left **ventricle** into the extensive intramyocardial vascular plexus. In essence, at the immediate treated site of the...of the aortic occlusion device and advanced through the aortic valve and into the left **ventricle** . The sidefiring laser catheter is then directed toward the endocardium where a series of channels and into the left **ventricle** ...

...of the patient's coronary arteries and the laser beam 502 directed toward the left **ventricle** 13 to open a blood flow passage from the **ventricle** 13 into the coronary artery. This technique is repeated until about twenty to thirty (2030) one millimeter diameter holes 503 are formed in the **ventricle** as shown in Figs. 8 and 9...

...used to inflate the balloon 536. A guidewire 560 may be used to advance

the **stent** delivery catheter 547 through the io **coronary artery** 51 to the site of a coronary stenosis 102. The **balloon** 536, which is deflated with the **stent** 548 mounted thereon, is then advanced across the stenosis 102 as shown in Fig. 14A. Fig. 14B illustrates that when the **balloon** 536 is inflated, the **stent** 548 is **expanded** to dilate the stenosis 102. The **balloon** 536 is then deflated and the catheter 547 is withdrawn leaving the **stent** 548 in the **coronary artery** 51 (Fig. 14C).

The stent 548 is preferably impregnated with a therapeutic agent for delivery...described above.

12/5,K/15 (Item 15 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00425698 **Image available**
METHODS AND APPARATUS FOR BYPASSING ARTERIAL OBSTRUCTIONS AND/OR PERFORMING OTHER TRANSVASCULAR PROCEDURES

Patent Applicant/Assignee:
TRANSVASCULAR INC,
Inventor(s):
EVARD Philip C,
FLAHERTY J C,
GARIBOTTO John T,
MACAULAY Patrick E,
MACHOLD Timothy R,
MAKOWER Joshua,
WHITT Jason B,
VIDAL Clade A,
REDMOND Russel J,
BANKS Thomas,

Patent and Priority Information (Country, Number, Date):
Patent: WO 9816161 A1 19980423
Application: WO 96US19093 19961127 (PCT/WO US9619093)
Priority Application: US 96730327 19961011; US 96730496 19961011
Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class: **A61B-017/36**
Publication Language: English

English Abstract
This invention concerns methods, devices, and systems for re-vascularization, and/or performing other medical procedures at vascular or non-vascular intra-corporeal locations within a mammalian body. The methods generally comprise the formation of at least one extravascular passageway (10a) from a blood vessel to a vascular or non-vascular target location. In the re-vascularization methods the extravascular passageway is utilized for blood flow. In the medical procedure methods the extravascular passageway (10a) is utilized as a conduit for accessing or performing procedures at the vascular or non-vascular target location. Also disclosed are catheter devices and systems which are useable to form the extravascular passageways (10a,

10b) of the invention, as well as apparatus for modifying, maintaining and/or closing such extravascular passageways.

Detailed Description
... full-thickness penetrations through the ischemic myocardial wall, and into the chamber of the left **ventricle** . oxygenated blood from the left **ventricle** then flows outwardly through such penetration tracts, so as to perfuse the ischemic myocardium. Examples...

...impede flow such as coils; hemostatic materials such as collagen, Gelfoam TM or fibrin, covered **stents** or frames, detachable **balloons** , valve structures clips, fasteners or plugs, etc. Further, the function served by these members may...which obtains arterial blood from an artery or from any other source (e.g., left **ventricle**), and passes such arterial blood into another artery.

Moreover, in accordance with the revascularization methods...and great cerebral vein, to a desired location adjacent the extravascular target area (e,g.,, **ventricle** of the brain). Thereafter, a tissue-penetrating element 102 is passed from the catheter 100...of the cannula 103 as an indwelling shunt or draining excess cerebrospinal fluid from a **ventricle** of the brain to a secondary location (e.g., peritoneum) within the body. Because the...

12/5,K/16 (Item 16 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00372729 **Image available**
A DEVICE, SYSTEM AND METHOD FOR INTERSTITIAL TRANSVASCULAR INTERVENTION
DISPOSITIF, SYSTEME ET PROCEDE PERMETTANT UNE INTERVENTION INTERSTITIELLE TRANSVASCULAIRE
Patent Applicant/Assignee:
TRANSVASCULAR INC,
Inventor(s):
MAKOWER Joshua,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9713471 A1 19970417
Application: WO 96US16268 19961011 (PCT/WO US9616268)
Priority Application: US 955164 19951013
Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class: **A61B-019/00**
Publication Language: English

English Abstract
Method and apparatus for utilizing the vascular system as a conduit to reach other vascular and extravascular locations within the body. Included are methods for revascularization wherein the extravascular passageways are formed to permit blood flow between vascular locations. Also included are methods for performing transvascular interstitial surgery (TVIS) wherein extravascular passageways are formed from a blood vessel to another vascular or non-vascular intracorporeal location. Also disclosed are devices usable for forming extravascular passageways in

accordance with the invention, or for modifying, valving, maintaining or closing such passageways.

Detailed Description
... shown, the guide catheter 4 has been advanced into the coronary sinus within the right **atrium** of the heart 1. This guide catheter will be of the type generally known in...the coronary artery 2.

To prevent coronary blood from shunting directly back into the right **atrium** through the coronary sinus, it is necessary to block flow at one or more points...position of the stent suggests that the TVIS guide catheter had been placed within the **coronary artery** 2, and the ...in the arterial to venous direction. This would allow for the proper positioning of a **guidewire** and subsequently the **stent** to allow for the device to be oriented in the arterial to venous direction. It should be clear that it is also possible for a similar **stent** to be placed downstream (in a location, for example, corresponding to region 1203 in FIG...

12/5,K/17 (Item 17 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00372721 **Image available**
METHODS AND APPARATUS FOR BYPASSING ARTERIAL OBSTRUCTIONS AND/OR PERFORMING OTHER TRANSVASCULAR PROCEDURES
Patent Applicant/Assignee:
TRANSVASCULAR INC,
Inventor(s):
EVARD Philip C,
FLAHERTY J C,
GARIBOTTO John T,
MACAULAY Patrick E,
MACHOLD Timothy R,
MAKOWER Joshua,
WHITT Jason B,
VIDAL Clade A,
REDMOND Russel J,
BANKS Thomas,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9713463 A1 19970417
Application: WO 96US16483 19961011 (PCT/WO US9616483)
Priority Application: US 955164 19951013; US 9610614 19960202
Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Main International Patent Class: **A61B-017/00**
Publication Language: English

English Abstract
This invention is methods, devices, and systems for re-vascularization, and/or performing other medical procedures at a vascular or non-vascular intra-corporeal locations within a mammalian body. The methods generally comprise the formation of at least one extravascular passageway from a

blood vessel to a vascular or non-vascular target location. In the re-vascularization methods the extravascular passageway is utilized as a conduit for accessing or performing procedures at the vascular or non-vascular target location. Also disclosed are catheter devices (100, 103) and systems (138) which are usable to form the extravascular passageways of the invention, as well as apparatus for modifying, maintaining and/or closing such extravascular passageways.

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Set     Items   Description
S1      14519   ATRIUM? ? OR ATRIA? ? OR VENTRICLE? ? OR VENTRICULAR?
S2      10364   CORONARY(2N)(ARTERY OR ARTERIES OR VESSEL? ?)
S3     379565   GUIDE? ? OR GUIDEWIRE? ? OR WIRE? ?
S4     230972   BALLOON? ? OR EXPANS? OR EXPAND?
S5      17336   STENT? OR PROSTHES?S
S6        663   S1 AND S2 AND S3 AND S4 AND S5
S7        184   S6 AND IC=(A61B OR A61F)
S8          5   S3(S)S4(S)S5(S)S2(S)S1
S9         27   S2(S)S3(S)S4(S)S5 AND S1
S10        17   S9 AND IC=(A61B OR A61F)
S11        17   IDPAT (sorted in duplicate/non-duplicate order)
S12        17   IDPAT (primary/non-duplicate records only)
? show files
File 348:EUROPEAN PATENTS 1978-2003/Apr W03
         (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030501,UT=20030424
         (c) 2003 WIPO/Univentio
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